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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,123	09/09/2003	Arne W. Ballantine	2233.002	9697
23405 7590 04/02/2007 HESLIN ROTHENBERG FARLEY & MESITI PC 5 COLUMBIA CIRCLE ALBANY, NY 12203			EXAMINER CREPEAU, JONATHAN	
			ART UNIT 1745	PAPER NUMBER
			MAIL DATE 04/02/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/658,123	Applicant(s) BALLANTINE ET AL.	
	Examiner Jonathan S. Crepeau	Art Unit 1745	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 March 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See continuation sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☒ Newly proposed or amended claim(s) 31,32,36,38-41 and 45 would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: 1,5,7,8,10-15,18-24,26,28,31,32,36,38-42 and 45.

Claim(s) objected to: _____.

Claim(s) rejected: 2-4,6,16,17,25,27,29,33-35,37,43,44 and 46.

Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).


10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____

13. ☒ Other: Interview Summary and Notice of References Cited, attached.


Jonathan Crepeau
Primary Examiner
Art Unit: 1745

Applicants have proposed to amend independent claims 1 and 22 to delete the limitation that the cell acts to purify oxygen, while leaving the limitation that the cell acts to purify hydrogen. This raises several issues, as detailed below. Claims 1 and 22 recite that the cell is a solid oxide fuel cell, which is the feature previously indicated as rendering the claims allowable. However, the recitation of hydrogen purification in combination with the recitation of a solid oxide fuel cell is not believed to be enabled nor supported by the instant specification. An enablement issue is raised because a solid oxide fuel cell comprises an electrolyte that conducts oxygen anions, which are transferred through the membrane to produce purified oxygen (see for example, US 2007/0034507, cited herewith). It is not clear how a solid oxide electrochemical cell is capable of purifying hydrogen, since the solid oxide electrolyte does not conduct protons. In addition, the instant specification does not state that a solid oxide cell is used in a system producing purified hydrogen. In fact, the specification maintains a clear line of demarcation between embodiments using a PEM fuel cell which purify hydrogen and embodiments using a solid oxide fuel cell which purify oxygen. If Applicants maintain the position that proposed claims 1 and 22 meet the requirements of 35 USC 112 first paragraph, Applicants are respectfully requested to: (1) rebut the presumption of a lack of enablement by showing that a solid oxide fuel cell is capable of producing purified hydrogen, including a discussion of relevant chemical equations and theory; and (2) rebut the assertion of a lack of support in the instant specification that a solid oxide cell is used in the same embodiment as hydrogen purification systems by citing page and line numbers.

It is further noted that claim 46 was not proposed to be cancelled, however, claim 37, which was proposed to be cancelled, recites similar subject matter. Claim 46 recites that the cell

Art Unit: 1745

is a PEM fuel cell, however parent claim 40 recites that the cell purifies oxygen. As this situation is analogous to that discussed above, cancellation of claim 46 is also suggested.

Applicant is reminded that since the instant amendment was not entered, any subsequent amendments should show claims amendments relative to the claim listing of December 20, 2006.